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From: INFO-HAMS-REQUEST@SIMTEL20.ARPA
Subject: INFO-HAMS Digest V88 #118
X-To: INFO-HAMS@SIMTEL20.ARPA
To: Douglas Chan <ENGM08C@BOSTONU>

INFO-HAMS Digest Sun, 20 Mar 88 Volume 88 : Issue 118

Today's Topics:

 Monitor fighter pilot training on shortwave
 Standing up to UPS
 WRSU Radio Reunion Weekend

Date: 17 Mar 88 03:52:46 GMT
From: ihnp4!ihuxz!parnass@ucbvax.Berkeley.EDU (Bob Parnass, AJ9S)
Subject: Monitor fighter pilot training on shortwave

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Over a year ago, we reported apparent USN missile test firings in the Gulf of Mexico monitored on 3.109 MHz USB. Back then, tactical identifiers like Antietam Test and Seabreeze were used.

Over a year later, 3.109 MHz is still alive with activity. Seabreeze, purportedly the Navy facility in Pensacola, Florida, is still heard weeknights. Other stations like Spartan (the USS Lexington?) and Lake Champlain Test, have been active, apparently in missions to train fighter pilots.

Here is just a small sample of military aero stations logged in the past few years:

6.7600 MHz: MLO [Andrews AFB, Washington DC] US: Air Force, "MLO de DAC QSY 6780", cw, 02/13/86 @0119Z (source: confirmed by B. Parnass)

8.9890 MHz: call? [Loring AFB, ME] US: Air Force, gave test count, usb, 04/08/86 @0013Z (source: confirmed by B. Parnass)

call? [MacDill AFB, FL] US: Air Force, in-flight aircraft: "Ground 6" Tactical Air Command trainer, usb (source: confirmed by B. Parnass)

9.0230 MHz: call? [Co Springs CO/North Bend OR/Hamilton CA/Wash DC] US: Air Force, NORAD, usb (source: confirmed by B. Parnass)

11.1760 MHz: call? [Albrook AFB, Panama Canal Zone] US: Air Force, patched aircraft "Joyce 03", transporting a Honduran soldier with dysentery, to MAC ops, usb, 03/21/87 @1719Z (source: confirmed by B. Parnass)

11.2140 MHz: call? US: Air Force, AWACS aircraft 'Sentry 51' calling 'Raymond 24', the net control station at 552nd AWACS Tinker AFB Okla, freq='Charlie 4', usb, 01/02/86 @1809Z (source: confirmed by B. Parnass)

call? US: Air Force, Tactical Air Command, 'Dragnet India' wkg 'Dragnet Golf', testing time-varying speech inversion scramblers using preambles. This freq used by AWACS aircraft, usb, 12/11/85 @1840Z (source: confirmed by B. Parnass)

13.2040 MHz: call? US: Air Force, TAC, forward air controllers in wargames, usb (source: confirmed by other listeners)

13.2440 MHz: AFD14 [Ascension Is] US: Air Force, in-flight aircraft I2L (Navy) made phone patch to request NORAD and FAA be notified of an upcoming flight, QSYed to 15.015 MHz due to poor patch quality, usb, 5/19/85 @2240 (source: confirmed by B. Parnass)

13.2480 MHz: call? Germany: German Air Force, German Air Force 251 working "91", mixed German and English conversation re flight ops, usb, 8/21/85 1850Z (source: confirmed by other listeners)

13.2570 MHz: call? US: Air Force, AWACS aircraft 'Sentry 60' phone patch through Edmonton to Loring AFB, usb, 11/19/86 @1751Z (source: confirmed by B. Parnass)

14.8430 MHz: call? unidentified: military network passing tfc about medivac TFW pilots wounded by explosive detonation. Part of operation "Corn Cob", ids=Betwixt 1, 2, and 3, usb, 05/18/87 @1735Z (source: confirmed by B. Parnass)

15.0150 MHz: AHF3 [Albrook AFS, Panama Canal Zone] US: Air Force, usb, 5/19/85 @2250Z (source: confirmed by B. Parnass)

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Bob Parnass AJ9S - AT&T Bell Laboratories - ihnp4!ihuxz!parnass - (312)979-5414

Date: 19 Mar 88 04:14:23 GMT
From: ulysses!thumper!karn@ucbvax.Berkeley.EDU (Phil R. Karn)
Subject: Standing up to UPS

Well, here are my reply comments to the UPS late filing. If you haven't written yours yet, WHY NOT?? At the very least, grab a piece of paper, write your name, call and "Docket 87-14" on it, and say

"I strongly urge the Commission to reject the request by UPS to reallocate 220-222 MHz from the Amateur Service to the Land Mobile Service. I fully support the comments of the ARRL and [insert any other names here :-)] in this matter."

DO IT BEFORE MARCH 31ST!! BETTER YET, DO IT NOW!!

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC

In the Matter of)	
Amendment of Part 2)	General Docket #87-14
of the Commission's Rules)	RM-4829
Regarding the Allocation)	RM-4831
of the 216-225 MHz Band)	RM-4983	

To: The Commission

REPLY COMMENTS OF PHILIP R. KARN, JR., KA9Q, TO LATE-FILED
COMMENTS OF UNITED PARCEL SERVICE OF AMERICA, INC.

I wish to oppose, in the strongest possible manner, the comments of the United Parcel Service (UPS) regarding the reallocation of 220-222 MHz from the Amateur Service. UPS blithely asserts that "the functions that Amateurs perform at 220-222 MHz can be conducted elsewhere without significant inconvenience". Apparently UPS has not read very many (if any) of the comments filed by thousands of radio amateurs, including myself, or it would not have made such an incredible statement.

ERRORS OF FACT IN THE UPS PROPOSAL

To begin with, the UPS comments are littered with factual errors, omissions and distortions. (One wonders how much actual research they did in the extra six months after the original comment deadline they took to prepare their comments). For example, they casually omit mentioning that 420-430 MHz is unavailable to American amateurs operating near the Canadian border. Or that in many areas large parts of the 420-450 MHz band are rendered virtually unusable for long periods of time by military radars, to which amateur operation is secondary. Or that the bottom 25 MHz of the former 1215-1300 MHz band was taken away from the amateurs several years ago to make way for the Global Positioning Satellite system. Or that amateur operation on the 902-928 MHz band is on a secondary basis, with the band being completely unavailable to amateurs in parts of Colorado and Wyoming. Or that high speed packet radio is confined by FCC rule to frequencies above 220 MHz (not 50 MHz as implied by UPS).

THE AMATEUR PACKET RADIO NEED FOR 220-222 MHZ IS STRONGER THAN EVER

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Military radar on the 420-450 MHz band has recently emerged as an especially serious problem with the new, high speed packet modems that are an important part of amateur

packet radio's future. Bandwidth requirements dictate that such modems operate above 220 MHz; however, contrary to the assertion made by UPS, there is NO "abundance of spectrum" between 222 and 225 MHz in the New York/New Jersey metropolitan area, where I live, and in many other metropolitan areas. As a result, the 220-222 MHz segment has emerged as a key factor in the development of amateur packet radio. Monitoring the 220-225 MHz band in my area with a spectrum analyzer revealed that the existing low-speed packet channels in the 220-222 MHz range have utilizations consistently higher than those of the voice repeaters in the 222-225 MHz range, rivaling even those of the most popular 144-148 MHz band repeaters. It is not unusual for the channels to remain busy all night forwarding messages, and this is under routine (not emergency) conditions.

Even in situations where the higher frequency bands are also usable for packet radio (i.e., where inferior propagation and military use permits) recent research and experimental results by myself and others since the original comment period expired have shown that "cross-banding" is an extremely effective technique for improving the efficiency and performance of a packet radio switch. In cross-banding, each switch node transmits on one frequency band while simultaneously receiving on several frequencies on other amateur bands. Other nodes operate similarly, with each listening to the transmit frequencies of its neighbors. Frequencies are "reused" (assigned to more than one transmitting station) in a controlled manner to avoid interference, much like cellular radio.

The advantages of this approach are many, as collisions (interference caused by simultaneous transmissions on the same frequency) are avoided. This results in increased capacity and enormously improved network stability under heavy load, such as that to be expected during the communications emergencies for which amateur radio exists to serve the public interest. The full-duplex (simultaneous transmission and reception) mode of operation is absolutely fundamental to this concept. However, full-duplex operation with multiple channels is economically practical only when separate amateur bands are used for transmission and reception.

We believe that high speed packet radio allocations on at least three separate amateur bands, including 220 MHz, will be necessary to make this scheme work. But if amateurs lose the 220-222 MHz segment there is simply _n_o room for such an allocation in the remaining 222-225 MHz portion. This will severely cripple the development of this highly promising technique and hinder the ability of amateur radio

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to fulfill another reason it exists: to advance the state of the art in radio communications technology.

OTHER SOLUTIONS EXIST TO UPS'S STATED NEED FOR MOBILE COMMUNICATIONS

One wonders why UPS is suddenly so interested in the two-way voice business. As a radio amateur and computer user I have used UPS's excellent services many times, and it seems that they have little to gain from two-way voice radio communications. One would presume that UPS might benefit from record (as opposed to voice) communications when dispatching pickups and deliveries. One-way data transmission using printers attached to FM broadcast subcarrier or conventional paging receivers would be far more efficient for this purpose, especially since the truck drivers seem to be out of their trucks (and away from any radio equipment) much of the time. If truly necessary, voice communications could be provided by portable cellular telephones at a much lower overall cost than a dedicated UPS system.

THE COMMISSION SHOULD DENY THE UPS REQUEST

The filings to date in this matter have repeatedly and overwhelmingly documented the strong need of the Amateur Service for the 220-222 MHz band. Because the (late) filing of the United Parcel Service has not contributed any new ideas or additional information that would lend weight to the Commission's ill-considered proposal, I strongly urge

the Commission to reject it in its entirety. Furthermore, the Commission should resolve Docket 87-14 in favor of the Amateur Service as soon as possible. Development of amateur packet radio networks have taken and will continue to take considerable sums of money, and the reluctance to invest further in 220 MHz gear that may become useless has severely dampened packet radio development. Any additional Commission delay in reaffirming the Amateur Service's need for use of 220-222 MHz translates directly into a delay in fulfilling the fundamental Basis and Purpose of the Amateur Radio Service.

Sincerely,
Philip R. Karn, Jr.

March 18, 1988

Date: 20 Mar 88 03:05:40 GMT
From: elbereth.rutgers.edu!schleck@rutgers.edu (Daniel Schleck)
Subject: WRSU Radio Reunion Weekend

WRSU, the student operated radio station of Rutgers, The State University of New Jersey, is celebrating our 40th year of broadcasting.

As part of the celebration commemorating the first broadcast of WRSU, which took place on April 26, 1948, we are planning an Alumni On the Air Day on Saturday, May 21, 1988. This is the same weekend as the annual Rutgers Alumni Weekend. We would like to have the alumni of WRSU come back and play records, do news/sportscasts, play old tapes, and tell stories of WRSU history. With other WRSU contemporaries, an alumni staff will do a radio show as in the "good old days". The amount of total air time given to the First Annual Alumni On The Air Day will depend on the response we get, so we need to hear from you!! The

deadline for the alumni air staff is April 30,1988.

For those of you who do not wish to be on the air again, but are interested in how WRSU has been doing since you left, we will have an OPEN HOUSE in our studios in the Rutgers Student Center, fourth floor, from 10 am to 6 pm on May 21, 1988. Refreshments will be served.

If you are interested in being ON THE AIR again, or just want to know more about WRSU-FM, Rutgers Student Radio, please contact us:

Jerry Donnelly '78, Broadcast Administrator
at 201-932-3710 or 7800

or send attached form to:

WRSU Alumni Weekend
WRSU-FM Radio
126 College Avenue
New Brunswick, New Jersey 08903

or respond via e-mail.

Looking forward to hearing from you,

Daniel Schleck '78
WRSU Alumni Chairman

WRSU Alumni Society

Name_____ Grad Year_____
WRSU
Street_____ Dept/Show_____
City_____ State_____ ZIP_____
Best time
Phone_____ to Call_____
Other Information_____

End of INFO-HAMS Digest
